

Amendment to the Claims

Claims 1-121. (Previously Cancelled)

Claim 122. (Currently Amended): A method of withdrawing and dewatering slag from a gasification system comprising a gasifier, said method comprising:

receiving slag from the gasification system into an inlet of a conveying lockhopper;
conveying the slag from the inlet of the conveying lockhopper to an outlet of the conveying lockhopper, wherein the outlet is at a higher elevation than the inlet, and wherein the step of conveying the slag comprises rotating an auger disposed in the conveying lockhopper to convey the slag from the inlet to the outlet, thereby breaking down the slag and separating the slag from the water; and
discharging the slag from the outlet.

Claim 123. (Original): The method of claim 122, wherein said step of receiving slag comprises opening a valve at the inlet to enable slag to collect in the conveying lockhopper.

Claim 124. (Original): The method of claim 122, wherein said step of receiving slag comprises closing a valve at the outlet.

Claim 125. (Original): The method of claim 122, wherein during said step of receiving slag, the pressure within the conveying lockhopper is approximately the same as the pressure within the gasification system.

Claim 126. (Currently Cancelled)

Claim 127. (Currently Amended): The method of claim 122, wherein said step of conveying the slag further comprises rotating the auger at a rotational speed between approximately 0.25 revolutions per minute and approximately 10 revolutions per minute.

Claim 128. (Previously Amended): The method of claim 122, further comprising the step of providing a storage buffer for receiving dewatered slag from the outlet.

Claim 129. (Previously Amended): The method of claim 128, wherein the storage buffer receives slag from the outlet.

Claim 130. (Original): The method of claim 122, wherein said step of discharging the slag comprises:
closing a valve at the inlet of the conveying lockhopper; and
opening a valve at the outlet of the conveying lockhopper.

Claim 131. (Original): The method of claim 122, wherein said step of discharging the slag comprises forcing a fluid from the conveying lockhopper into a tank coupled to the conveying lockhopper.

Claim 132. (Original): The method of claim 131, wherein said step of discharging the slag further comprises using an inert gas to force the fluid from the conveying lockhopper into the tank.

Claim 133. (Original): The method of claim 132, wherein the inert gas is nitrogen.

Claim 134. (Original): The method of claim 131, wherein the tank is an atmospheric heel tank.

Claim 135. (Original): The method of claim 131, wherein the tank is a quench chamber of the gasification system.

Claim 136. (Original): The method of claim 131, wherein the tank is a syngas cooling apparatus of the gasification system.

Claim 137. (Original): The method of claim 122, further comprising depressurizing the conveying lockhopper prior to said step of discharging the slag.

Claim 138. (Original): The method of claim 122, further comprising the step of adding a fluid to the conveying lockhopper from a tank coupled to the conveying lockhopper.

Claim 139. (Original): The method of claim 122, further comprising the step of pressurizing the conveying lockhopper to approximately the same pressure as the pressure within the gasification system.

Claim 140. (Original): The method of claim 139, wherein said step of pressurizing the conveying lockhopper is carried out using an inert gas.

Claim 141. (Original): The method of claim 140, wherein the inert gas is nitrogen.

Claim 142. (Original): The method of claim 122, wherein said step of discharging the slag comprises:
closing a valve at the inlet of a slag storage buffer; and
opening a valve at the outlet of the slag storage buffer.

Claim 143. (Original): The method of claim 142, further comprising depressurizing the slag storage buffer prior to said step of discharging the slag.

Claim 144. (Original): The method of claim 122, further comprising the step of pressurizing a slag storage buffer to approximately the same pressure as the pressure within the conveying lockhopper.

Claim 145. (Original): The method of claim 144, wherein said step of pressurizing the slag storage buffer is carried out using an inert gas.

Claim 146. (Original): The method of claim 145, wherein the inert gas is nitrogen.